REPORT TO THE LEGISLATURE
Pursuant to P.A. 59 of 2013
Section 401
Prison Population Projection Report
February 2014

INTRODUCTION

The Michigan prison population increased by 110 inmates during calendar year 2013, to a total of 43,704 prisoners (+0.3%). This population growth was anticipated by the Michigan Department of Corrections (MDOC), as the population projections issued in February of 2013 were 99.6% accurate at the end of the year (just 162 prisoners higher than actual population).

It was the second consecutive annual prison population increase, following 5 consecutive previous years of decline. The prison population is still 15% smaller than the record high of 51,554 inmates that was reached in March of 2007 (still -7,850 inmates from the peak).

An increase in prison admissions was the primary factor responsible for the prison population growth. Helping to keep the population growth modest was an increase in moves to parole and decreases in both the number of parole violator technical returns to prison and the number of parole violators with new sentences (the fifth year in a row of PVNS decline).

Despite the prison population growth, the MDOC was able to reduce net operating capacity by 299 prison beds during the course of calendar year 2013, thereby generating some incremental savings.

2013 did not see uniform prison population growth, as the population first declined by 314 inmates through the first eight months of the year, but then increased during the last four months of the year by 424 inmates, resulting in the net increase of 110 prisoners for the year as a whole.

FACTORS DRIVING PRISON POPULATION CHANGE

The modest increase in the size of the prison population during 2013 resulted from a 4% increase in new prison admissions with new sentences (a preliminary +352 admissions).

Most of the prison intake increase was driven by new court commitments not under the jurisdiction of the MDOC at the time of the offenses for which convicted (+6%). Also up was the number of probation violators sent to prison either by resentencing to prison for probation violations or because of new sentences for crimes committed while on probation (+2%). Countering those increases, parole violators with new sentences to prison declined again for the fifth consecutive year (-1%).

The average cumulative minimum sentence for new non-lifer prison admissions increased by 2 months to 4.2 years in 2013 compared to 2012. The largest year-to-year increase among the cumulative minimum term categories for new admissions was a 16% increase in minimum sentences to prison longer than 10 years.

Underlying the 4% increase in prison admissions for 2013 was a 1% increase in the prison commitment rate (to 21.8% based on data through November) among the 50,000+ felony court dispositions for the year.

The smaller prison population increase during 2013 (+110 inmates) in comparison to that of the previous year (+690 inmates) was assisted by:

- More moves to parole (+12.6% over 2012), due primarily to a higher parole approval rate, but also to a lesser extent by a modest increase in the number of parole board decisions compared to the previous year.

- Fewer parole revocations for technical violations of parole conditions (a preliminary -663 parole violator technical returns to prison compared to 2012). Annual parole violator technical revocations were down by 38% from the record high year in 2002, despite a 20% larger average parole population in 2013 compared to 2002. The number of parole absconders at large was also reduced by 6% during calendar year 2013.

The number of prisoners who were past their earliest release dates (ERD) without paroles-in-hand decreased by 278 inmates for the year to 7,232 past-ERD prisoners.

81% of current prisoners have either not yet reached their ERD (69%), or are serving life sentences (12%).

PRISON POPULATION PROJECTION METHODOLOGY

Michigan's prison population projections are generated by a computerized simulation model, developed originally by the National Council on Crime and Delinquency (NCCD). It was then adapted for Michigan by research and planning staff in the Michigan Department of Corrections. The computerized simulation model mimics the movement of prisoners through the Corrections system and uses past practice and prior year trends to predict future patterns.

The projection model itself is simply an automated shell into which numerous probability distribution arrays must be fed (after creation outside the model by extensive statistical analyses), regarding how and when prisoners move through the various points in the corrections process (e.g., intake at reception, time to each subsequent parole hearing, likelihood of parole at each hearing, timing of release to parole, chances of return as a violator, and discharge from sentence). These arrays are broken down by the various population subgroups with particular characteristics (i.e., offense, sentence length, etc.).

Michigan's projection model incorporates finer resolution than the original NCCD model. For example, Michigan's model has up to 50 distinct maximum-term groups, each of which can have up to six minimum-term pairings. This level of detail allows particular attention to relatively short sentences of 2 years or less, which have the most influence on 3 to 5 year projection accuracy.

The projection model does not forecast the annual number of prison admissions; but once entered as values, the model does disaggregate admissions randomly based on past distributions. Then, the projection model simulates the flow of the existing prison population and new intake through the system, including feedback loops for parole violators with and without new sentences.

The source of the raw data for the projections is downloads from the MDOC Corrections Management Information System (CMIS), and the data are analyzed via the Statistical Package for the Social Sciences (SPSS). Once the projection model shell is populated with probability distribution arrays, numerous iterations of the model are run, "fine tuning" against two or more years of historical, actual trace vectors for purposes of validating the rebuilt data.

After a successful result is obtained (which must track past trends accurately, and must correspond to short-term expectations for the future informed by considerable independent analysis of recent trends), then the projections are issued by the Department. Multiple projection runs can be combined – especially in times of particular uncertainty – to generate a confidence interval based on the monthly minimums and maximums for all of the runs, with the expectation that future population will more assuredly fall within the confidence interval. The model can also be used for "what if" analyses, such as simulating the impact of proposed legislative sunset provisions or modifications to sentencing laws.

Exceptions to the model's track record of better than 99% short-term projection accuracy have sometimes occurred over the years, when criminal justice practices and trends deviated from the past or showed unstable or uncharacteristic patterns – in which case the problem has generally been inadequate history against which to validate and fine-tune the results.

Long-term projections are generally considered less reliable because of the difficulty associated with predicting multi-year prison intake volume as well as changes in laws and policies that may affect the underlying statistical distributions which drive the model. That is why the projections are updated at least once each year – to adjust for any new laws, policies, court rulings, operational practices or trends.

NEW PRISON POPULATION PROJECTION ASSUMPTIONS

The prison population forecast in this report is a baseline forecast that assumes no new legislative or policy initiatives. Therefore, the assumptions underlying this projection pertain to the usual key factors that drive prison population (which include - for the most part - prison intake, paroles, and parole revocations).

Prison Intake

Through November (the latest available data), felony court dispositions were on a pace to increase slightly in 2013 compared to 2012 (+0.3%). The prison commitment rate was also on a pace to climb modestly in 2013 with an estimated 21.8% sentenced to prison (+1.1% from 2012), so the number of felony court dispositions to prison was also on a pace to increase due to the upticks in total dispositions and prison commitment rate.

There was an increase of 4.0% for prison intake in 2013 compared to 2012 (up by a preliminary 352 to 9,234 admissions). Prison intake thus finished 2013 up for the second consecutive year, following five straight years of decline.

The 4.0% increase in prison admissions for 2013 was double the anticipated 2% increase that had been forecast in the last projection.

Consequently, the prudent course is to assume that, while upward spikes in prison admissions are unlikely absent substantial new funding for law enforcement, the new projections should continue to incorporate somewhat higher prison intake going forward. This projection update thus assumes that annual prison admissions will experience a 3% increase in 2014, a 4% increase in 2015, and then stability thereafter.

Paroles

Moves to parole in calendar year 2013 increased by 12.6% from the previous year due to higher parole approval rates and a small increase in parole decisions, to a preliminary total of 10,539 moves to parole. This is the first increase in moves to parole after three consecutive years of decline. The number of parole board decisions increased by 1.4% in 2013 compared to 2012.

These parole-related increases were not expected in the last projection, but they were offset by the larger than anticipated increase in prison admissions.

The annual number of parole board decisions will likely decrease in 2014, given: (1) A gradually increasing proportion of inmates who have not yet reached the earliest release date (ERD) or are serving life (now 81%), (2) A smaller number of past-ERD inmates available to the Parole Board for review, and (3) Fewer Board decisions regarding possible re-parole of returned violators.

Progressively fewer parole decisions would yield fewer moves to parole in 2014 absent an increase in the parole approval rate. There was a slightly higher number of moves to parole in January of this year compared to the same month last year, but current paroles-in-hand awaiting release dates in February and March are significantly smaller than the January number. Consequently, this projection update assumes that the number of moves to parole will decrease modestly in 2014, and then increase to around 10,800 moves to parole per year thereafter because of more new prison admissions reaching their first parole eligibility dates.

Parole Violator Technical Returns to Prison (parole revocations)

Parole violator technical (PVT) returns to prison in 2013 declined by a preliminary 25% compared to 2012 (-663). This decline was anticipated by the last projection.

It is assumed that fewer moves to parole in 2014, and the completion of parole terms by existing parolees, will yield a declining parole population throughout the year; and that, in turn, will moderate the number of PVT returns to prison in 2014.

It is also assumed that refinements to prisoner reentry practices will further moderate PVT returns to prison over time, although more paroles in the later years of the projection may then cause a modest rebound in the total number of annual PVT returns in those years.

Implications for the New Prison Population Forecast

Given the above discussion, it is expected that the size of the prison population will continue to rebound modestly each year through 2018 – absent future changes in criminal justice statutes, policies or practices that would affect the size of the prison population.

In 2014, this forecast assumes moderately increasing prison admissions, a decline in moves to parole, and continued moderation of parole revocations. This is a set of assumptions that yields gradually increasing prison population as a baseline forecast. The new projections forecast prison population growth of between about 300-400 additional inmates annually through each of the next five years.

It should be noted that January of 2014 has witnessed a prison population decline of 197 inmates for the month because of very low prison admissions at the start of the month due to the weather, along with above average moves to parole for the month. The prison population fell by over 300 inmates to start the month, but then grew back by about a third of that amount in the later part of the month. So, the month of January was probably an aberration, and prison population is thus expected to revert to the previous 4-month pattern of modest growth as 2014 progresses.

PRISON POPULATION PROJECTIONS

This projection update represents a revised and extended base projection that again does not assume new legislative or policy initiatives to further influence the size of the prison population.

The following chart summarizes the revised and extended baseline prison population projections through calendar year 2018. Table 1 (quarterly) and Table 2 (monthly) show the figures corresponding to the projection line in the chart.

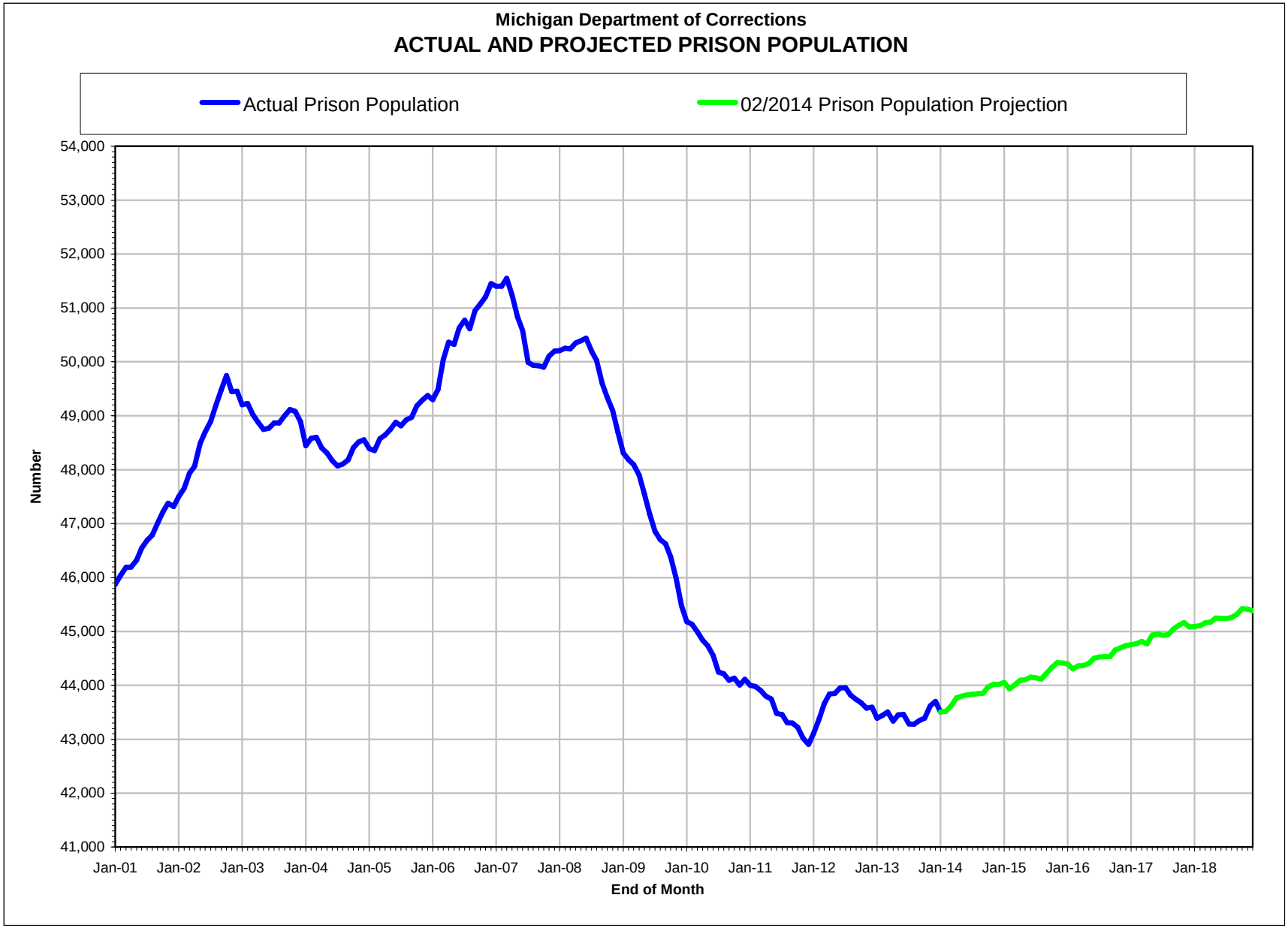
Michigan Department of Corrections
ACTUAL AND PROJECTED PRISON POPULATION
Actual Prison Population
02/2014 Prison Population Projection
Number
54,000
53,000
52,000
51,000
50,000
49,000
48,000
47,000
46,000
45,000
44,000
43,000
42,000
41,000
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
End of Month

Table 1

Prison Population Projection
February, 2014

End of Month	Projected Prisoner Population	Yearly Change
Mar-14	43,616	
Jun-14	43,823	
Sep-14	43,856	
Dec-14	44,022	318
Mar-15	44,009	
Jun-15	44,151	
Sep-15	44,223	
Dec-15	44,419	397
Mar-16	44,361	
Jun-16	44,505	
Sep-16	44,531	
Dec-16	44,736	317
Mar-17	44,816	
Jun-17	44,950	
Sep-17	45,051	
Dec-17	45,084	348
Mar-18	45,159	
Jun-18	45,243	
Sep-18	45,320	
Dec-18	45,385	301

MDOC Office of Research & Planning 2/04/2014

Table 2

Prison Population Projection
February, 2014

End of Month	Projected Prisoner Population	Yearly Change
Jan-14	43,507	
Feb-14	43,519	
Mar-14	43,616	
Apr-14	43,769	
May-14	43,802	
Jun-14	43,823	
Jul-14	43,835	
Aug-14	43,846	
Sep-14	43,856	
Oct-14	43,970	
Nov-14	44,022	
Dec-14	44,022	318
Jan-15	44,054	
Feb-15	43,931	
Mar-15	44,009	
Apr-15	44,096	
May-15	44,103	
Jun-15	44,151	
Jul-15	44,140	
Aug-15	44,116	
Sep-15	44,223	
Oct-15	44,333	
Nov-15	44,421	
Dec-15	44,419	397
Jan-16	44,397	
Feb-16	44,304	
Mar-16	44,361	
Apr-16	44,367	
May-16	44,405	
Jun-16	44,505	
Jul-16	44,527	
Aug-16	44,529	
Sep-16	44,531	
Oct-16	44,659	
Nov-16	44,699	
Dec-16	44,736	317
Jan-17	44,755	
Feb-17	44,775	
Mar-17	44,816	
Apr-17	44,771	
May-17	44,935	
Jun-17	44,950	
Jul-17	44,925	
Aug-17	44,942	
Sep-17	45,051	
Oct-17	45,109	
Nov-17	45,166	
Dec-17	45,084	348
Jan-18	45,093	
Feb-18	45,107	
Mar-18	45,159	
Apr-18	45,173	
May-18	45,251	
Jun-18	45,243	
Jul-18	45,240	
Aug-18	45,258	
Sep-18	45,320	
Oct-18	45,421	
Nov-18	45,414	
Dec-18	45,385	301

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